REMARKS

The present application was filed on December 1, 1998 with claims 1 through 28. Claims 1 through 28 are presently pending in the above-identified patent application. Claims 1, 8, and 15 are proposed to be amended and new claims 29-35 are proposed to be added herein.

In the Office Action, the Examiner rejected claims 1-3 under 35 U.S.C. §103(a) as being unpatentable over Freeman et al. (U.S. Patent Number 6,006,227) in view of Bohannon et al. (U.S. Patent Number 6,125,371) and in view of Allard et al. (United States Patent 5,991,802). Applicant assumes the Examiner meant to reject claims
5   1-28 in the above rejection since the Examiner addresses all 28 claims under the rejection of claims 1-3.

The present invention is directed to a method and apparatus for providing persistent storage of Web resources. Uniform Resource Locators ("URLs") that identify Web resources are augmented to include a time stamp. A web browser and a web server
10   are disclosed that accommodate a time stamp parameter and allow a user to refer to any Web address with a precise target date. The disclosed Web browser can optionally include a mechanism to facilitate the specification of the desired date and time, or the user can manually append the time stamp to the URL indicated in the "Location" window of the browser. The persistent Web servers (i) receive URLs containing a time stamp, (ii)
15   extract the time stamp, (iii) retrieve the correct Web page from the archive, and (iv) return the requested page to the client. The persistent Web servers include a persistent archive for storing all of the versions of Web resources that will be persistently available to Web users.

Independent Claims 1, 8, 15, 16, 22 and 28

20   Independent claims 1, 8, 15, 16, 22, and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Freeman et al. in view of Bohannon et al., and in view of Allard et al.

Regarding claim 1, the Examiner initially asserts that Freeman teaches the step of receiving a request for the electronic document, the request including a requested
25   time-stamp indicating a time associated with a desired version of the electronic document (col. 3, lines 61-67, and col. 4, lines 18-22).

The Examiner thereafter acknowledges that Freeman does *not* teach the step of identifying as a function of the creation time-stamp and the requested time-stamp a machine storing a version of the electronic document having a creation time corresponding to the requested time-stamp, but asserts that Bohannon teaches this

5   limitation at col. 5, lines 35-47.

Freeman / Bohannon Do Not Show A Time-Stamp In A Request

Freeman et al. is directed to an operating system in which documents are stored in a chronologically ordered "stream." As each document is presented to the operating system, the document is placed according to a time indicator in the sequence of

10   documents already stored relative to the time indicators of the stored documents. Col. 1, lines 4-10. It is an express object of Freeman et al. to provide "an operating system in which the location and nature of file storage is *transparent to the user*, for example, the storage of the files is handled automatically **and file names are only used if a user chooses to invent such names**." Even when a user does choose to "invent" file names,

15   Freeman et al. does not disclose or suggest how such file names are used to retrieve documents or whether a request for such documents includes the file name and the time indication.

Bohannon et al. is directed to a database management system, and in particular, to techniques for aging versions of data records for deletion purposes to

20   increase memory capacity. While Bohannon assigns time stamps to data records in a database, it is for the purpose of deleting records having multiple versions in response to the time stamp. The time stamping appears to be an internal, transparent process initiated by the Bohannon system upon an update to an existing data record. There is no suggestion that such time stamps are even provided or known to the user and there

25   certainly is no suggestion that such time stamps are employed in a request for a data record to identify a particular version.

By contrast, Applicant's amended independent claims 1, 8, 15, 16, 22, and 28 require receiving a request for an electronic document that includes a time-stamp indicating a *creation time* of a desired version of a multiple-version document and require

30   transmitting the electronic document or transmitting an indication of said identified machine corresponding to the requested time-stamp.

Thus, Freeman and Bohannon, alone or in combination, do not disclose or suggest receiving a request for an electronic document that includes a time-stamp indicating a creation time of a desired version of a multiple-version document and transmitting the electronic document or transmitting an indication of said identified machine corresponding to the requested time-stamp, as required by independent claims 1, 8, 15, 16, 22, and 28, as amended.

Freeman/Bohannon Do Not Enable Requesting a Particular Document Corresponding to a Specific Time

Freeman defines a "stream" as a "time-ordered sequence of documents that functions as a diary of a person or an entity's electronic life. Every document created and every document sent to a person or entity is stored in a main stream." Col. 4, lines 6-10. Freeman also teaches that "substreams, unlike conventional, virtual or fixed directories which only list filenames, present the user with a stream 'view' of a document collection. This view, according to Freeman, contains all documents that are relevant to the search query. Also, unlike searches of conventional fixed directories, the substream is generated by default from all the documents in the main stream." Col. 4, lines 51-58. Thus, Freeman teaches that streams and substreams contain many different documents. Freeman does not disclose or suggest that a mainstream or substream contain only different versions of the same document. Therefore, when a request for a document is made from a mainstream or substream utilizing the scroll bar 20, a request for a *particular* document cannot be made, but only a request for *any* document at a specific time can be made. Independent claims 1, 8, 15, 16, 22, and 28, as amended, require receiving a request for *said electronic document*, said request including a requested time-stamp indicating a time associated with a desired version of said electronic document.

Person Of Ordinary Skill Would Not Look To Freeman Or Bohannon

As indicated in the Background section of Freeman et al., Freeman et al. expressly **"teaches away"** from conventional operating systems where a "file must be 'named' when created and often a location in which to store the file must be indicated resulting in unneeded overhead." Col. 1, lines 40-44. Thus, a person of ordinary skill in the art of the present invention would not look to Freeman et al. for a solution to the

problem of supplementing an address (or file name) so that it differentiates versions of a multiple version document. The present invention, on the other hand, extends conventional file naming or addressing schemes (where an electronic document is identified using a file name or address) to include the *time stamp* that differentiates

5   various versions of the document.

Similarly, Bohannon et al. is directed to the non-analogous field of a database management system that employs techniques for *aging* versions of data records for *deletion* purposes to increase memory capacity. The present invention is not interested in deleting any version of a multiple version document, but rather, in

10   maintaining such multiple versions and making them accessible to a user. The present invention provides a convenient mechanism to uniquely identify a particular one of such multiple versions. Thus, a person of ordinary skill in the art of the present invention would not look to Bohannon et al. for a solution to the problem of supplementing an address (or file name) so that it differentiates versions of a multiple version document.

15   Thus, Freeman et al. and Bohannon et al. (alone or in any combination) do not suggest or disclose receiving a request for said electronic document, said request including a requested time-stamp indicating a time associated with a desired version of said electronic document, as required by independent claims 1, 8, 15, 16, 22, and 28, as amended.

20   Additional Cited References

Allard et al. were also cited by the Examiner for its disclosure that the Uniform Resource Locator ("URL") has an associated request header for indicating said requested time stamp (a request header; col. 1, lines 50-60).

Applicant notes that Allard is directed to a "method and system for

25   invoking by a client computer a function of an object of an object class" (see, Abstract). Allard does not address the issue of requesting electronic documents utilizing a time-stamp indicating a time associated with a desired version of the electronic document.

Thus, Allard et al. do not suggest or disclose receiving a request for said electronic document, said request including a requested time-stamp indicating a time

30   associated with a desired version of said electronic document, as required by independent claims 1, 8, 15, 16, 22, and 28, as amended.

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Additional References

Applicant has submitted herewith an IDS with a reference that was cited in a related European patent application: Simonson, J., et al., "Version Augmented URIs for Reference Permanencevia an Apache Module Design," Computer Networks and ISDN

5 Systems 30, 337-345 (1998). Simonson et al. is directed to a system that "extends a document's URI (Universal Resource Identifier) to include date or revision information thus allowing document providers to permit users to refer accurately to a particular document version." Although Simonson et al. disclose redirecting a request (page 343, left column), Simonson et al. do not disclose or suggest identifying an address of said

10 version of said electronic document corresponding to said requested time-stamp as a function of said requested time-stamp and said domain name and do not disclose or suggest identifying as a function of said creation time-stamp and said requested time-stamp a machine corresponding to a version of said domain name for a time period corresponding to said requested time-stamp, as required by independent claims 1, 8, 15,

15 16, 22, and 28, as amended.

New Claims 29-35

New claims 29-35 have been added to more particularly point out and distinctly claim various features of the invention, consistent with the scope of the originally filed specification, in order to give applicant the protection to which he is

20 entitled. No new matter is introduced. Support for this material is set forth at page 9, line 20, to page 11, line 11 of the originally filed specification. New claim 29 requires receiving a request for said electronic document, said request including a requested time-stamp and a domain name, wherein said domain name is associated with a first domain for a first time period and a second domain for a second time period; and identifying one

25 of said first domain or said second domain utilizing a time indicated by said time-stamp. Applicant notes that Freeman, Bohannon, Allard, and Simonson, alone or in any combination, do not disclose or suggest receiving a request for said electronic document, said request including a requested time-stamp and a domain name, wherein said domain name is associated with a first domain for a first time period and a second domain for a

30 second time period; and identifying one of said first domain or said second domain utilizing a time indicated by said time-stamp.

Thus, Freeman, Bohannon, Allard, and Simonson, alone or in any combination, do not disclose or suggest receiving a request for said electronic document, said request including a requested time-stamp and a domain name, wherein said domain name is associated with a first domain for a first time period and a second domain for a 5 second time period; and identifying one of said first domain or said second domain utilizing a time indicated by said time-stamp, as required by new claim 29.

Dependent Claims 2-7, 9-14, 17-21, 23-27 and 30-35

Dependent claims 2-7, 9-14, 17-21 and 23-27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Freeman et al. in view of Bohannon et al., and in view of Allard et al.

Claims 2-7, 9-14, 17-21 and 23-27, and new claims 30-35, are dependent on claims 1, 8, 16, 22, and 29, respectively, and are therefore patentably distinguished over Freeman et al., Bohannon et al., and Allard et al. (alone or in any combination) because of their dependency from amended independent claims 1, 8, 16, 22, and 29 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

All of the pending claims following entry of the amendments, i.e., claims 1 through 35, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,

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